

Applicant: Justus Lamprecht
Docket No. R.307200
Preliminary Amdt.

AMENDMENTS TO THE SPECIFICATION:

Page 1, please add the following new paragraphs before paragraph [0001]:

- [0000.2] CROSS-REFERENCE TO RELATED APPLICATION
- [0000.4] This application is a 35 USC 371 application of PCT/EP 2005/050559 filed on February 9, 2005.
- [0000.6] BACKGROUND OF THE INVENTION

Please replace paragraph [0001] with the following amended paragraph:

- [0001] ~~Prior Art~~ **Field of the Invention**

Please replace paragraph [0002] with the following amended paragraph:

- [0002] The present invention relates to [[a]] an improved brush holder for an electrical machine, and in particular to a brush holder for an electric motor for power tools.

Please add the following new paragraph after paragraph [0002]:

- [0002.5] Description of the Prior Art

Please replace paragraph [0004] with the following amended paragraph:

- [0004] ~~Advantages of the Invention~~

SUMMARY AND ADVANTAGES OF THE INVENTION

Please replace paragraph [0005] with the following amended paragraph:

- [0005] The brush holder of the invention ~~having the characteristics of claim 1~~ has the advantage by comparison that it can be secured especially simply to an electrical machine. For that purpose, according to the invention, a securing element is provided which essentially has a T shape. As a result, a firm and exact seat of the brush holder with minimized inducement to vibration can be attained. The T-shaped securing element can simply be thrust

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against a suitably formed receptacle, so that no fastening screw or the like is necessary. Moreover, openings in the region of the electrical machine can be reduced as a result, so that an improvement in the rigidity of the electrical machine can be attained.

Page 2, please delete paragraph [0006].

Please replace paragraph [0008] with the following amended paragraph:

[0008] To make it especially economical to produce, the T-shaped securing element is formed in one piece with the housing of the brush holder. Especially preferably, the housing of the brush holder is made from two sheet-metal strips which are reshaped by means of reshaping such that they form the housing with integrally formed securing elements. Each housing part then preferably forms one leg of the T-shaped securing element. Alternatively, the housing may be formed in one piece. To that end, a sheet-metal strip is reshaped to suit a desired external housing shape, and then a slot is made in the unshaped sheet-metal strip. The sheet-metal strip is then bent over along the slot and widened, so that a receiving chamber for the brush is formed.

Page 4, please replace paragraph [0016] with the following amended paragraph:

[0016] Drawings **BRIEF DESCRIPTION OF THE DRAWINGS**

Please replace paragraph [0017] with the following amended paragraph:

[0017] In the drawing: **The foregoing and other features of the invention will become apparent from the detailed description contained herein below, taken in conjunction with the drawings, in which:**

Page 5, please replace paragraph [0023] with the following amended paragraph:

[0023] ~~Description of the Exemplary Embodiment~~

DESCRIPTION OF THE PREFERRED EMBODIMENT

Please replace paragraph [0024] with the following amended paragraph:

[0024] Below, referring to Figs. 1 through 5, a brush holder 1 in a first exemplary embodiment of the present invention will be described. As shown in Fig. 1, the brush holder 1 includes a housing 2 as well as a spring 7 acting as a prestressing element. The spring 7 is disposed outside the housing 2. The housing 2 comprises two parts 2a and 2b, which can be made from stamped metal sheets. By reshaping, the two housing parts 2a, 2b are designed such that one T-shaped securing element 3 and 5 each is formed on the left and right ends. The T-shaped securing elements 3, 5 are each joined to the housing 2 via the base of the T-shaped securing element. At the base of the T-shaped securing element, connecting tabs 4, 6 (see Fig. 1) are embodied, for joining the two housing parts 2a, 2b firmly to one another. Each free leg of the T-shaped securing element 3 is formed by a respective housing part 2a, 2b, and the base of the T-shaped securing element is formed by both housing parts 2a, 2b. The housing 2, which in its interior receives a carbon brush 11, is thus formed. Alternatively, the housing 2 may also be formed in one piece, by reshaping a metal sheet to suit the desired outer design and then making a slot, closed on both ends, in the metal sheet. The metal sheet is then pivoted over along the slot and upset, in order to form the receiving chamber for the brush. The connecting struts 4, 6 [[were]] are then the ends of the closed slot. To form the T-shaped securing elements 3 and 5, the metal sheet [[was]] is also slotted before being pivoted over, and the slots [[were]] are located on a line that also forms the pivot axis.

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Page 6, please replace paragraph [0025] with the following amended paragraph:

[0025] The carbon brush 11 is prestressed by the spring 7, so that as shown in Fig. 3, it can be pressed against a rotor of an electrical machine. To that end, a spring arm 8 is embodied on the spring 7 and through a recess 12 formed in the housing 2, this arm exerts a prestressing force on the carbon brush 11. As seen particularly from Figs. 1 and 5, the spring arm 8 is formed in the middle of the helical spiral spring 7, by rolling one counterclockwise and one clockwise coil of the spring 7 one onto [[both]] each side [[sides]] of the two-legged spring arm 8. As also seen from Figs. 2 and 3, the spring 7 is moreover embodied with V-shaped ends 9 and 10. The V-shaped ends 9, 10 of the spring 7 are guided via the base of the T-shaped securing elements 3, 5 and the connecting tabs 4, 6 in such a way that the connecting tabs 4, 6 are located at the kink point of the V-shaped ends 9, 10. Bent ends 22, 23 are additionally embodied on the outermost end piece of each end 9, 10 and engage the recesses (see Fig. 4) on the inside of the brush holder receptacle 15.

Please replace paragraph [0027] with the following amended paragraph:

[0027] As shown in Figs. 3 and 4, the brush holder 1 of the invention is thrust into a holder 15 on the electric motor housing and fixed. The fixation on the holder 15 is effected on the one hand via the T-shaped securing elements 3 and 5, which are introduced into a respective T-shaped channel-shaped slot 16 and 17 (see Fig. 3). The brush holder 1 is also secured to the holder 15 by means of the spring 7. More precisely, two tabs 18 and 19 (see Fig. 3) and two recesses 20, 21 (see Fig. 4) are provided on the holder 15. On the one hand, the outermost ends 22 and 23 of the spring 7 engage the recesses 20 and 21, and on the other, the transition between the V-shaped regions 9 and 10 and the spiral spring regions of the spring 7 are held

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by the tabs 18 and 19. Since the spring 7 is embodied symmetrically, a centered force can act on the carbon brush 11.

Page 7, please replace paragraph [0029] with the following amended paragraph:

[0029] The spring 7 can be secured to the holder 15 of the electric motor simply by clipping it in place and then pivoting over the V-shaped ends. The brush holder 1 is thus held on the holder 15 on the one hand by the T-shaped securing elements 3 and 5 and on the other by the spring 7 itself. As a result, a firm and exact fixation of the brush holder in the motor housing can be attained. Hence the spring 7 has a dual function, namely that of the prestressing element of the carbon brush 11 and the function of fixation of the housing 2 of the brush holder. Thus with a minimum number of components, the housing 2 can be prevented from falling out of the T-shaped channel-shaped slots 16, 17 in the holder 15.

Page 8, please add the following new paragraph after paragraph [0031]:

[0032] The foregoing relates to a preferred exemplary embodiment of the invention, it being understood that other variants and embodiments thereof are possible within the spirit and scope of the invention, the latter being defined by the appended claims.